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ABSTRACT

A procedure for testing teachers anonymously in a rural county in the Southeast aims at improving the quality of instruction and the teachers' scores on the Nelson-Denny Reading Test, ITBS Subtests, and the Otis Lennon Mental Ability Test. Training sessions held afterwards to help teachers focus on outcomes of instruction, their measurement, and the interpretation of scores to students were viewed negatively by the teachers, who at first felt there was no need for testing themselves. There was a change of attitude when facts were presented concerning the great range and low median of their scores. Although the scores did not improve substantially over time, the teachers did apparently function better. The procedure offers a means of supplying teachers with unlimited information about their proficiency in given areas and should be helpful to all school personnel in the improvement of instruction. The results of the testing indicate that at least a third and probably 40% to 60% of teachers are deficient in most of the instructional areas for which they have responsibility, and a significant number have less than average ability. (LH)

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A Procedure for Testing Teachers for the Improvement of Instruction and Their Scores on Certain Tests

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In order to help teachers in a rural county in the Southeast improve their ability to use test scores of their students, teachers were given tests in October and again in May.

There were seven black and fifteen white classroom teachers and six reading specialists. The number of scores on the instruments in Table 1 varies for reasons of absence and time considerations for makeup testing.

Teachers assigned themselves six digit numbers known only to the individual teacher. Scores were recorded by these six digit numbers and answer sheets were returned to the teachers in sealed envelopes with six digit numbers appearing on the outside. The following data for teachers was collected: (1) Nelson-Denny Reading Test (NDRT), Subtests--V and C, and reading rate grade equivalent scores for October (Form A) and May (Form B). (2) ITBS, Subtests--V, R, A-1, and A-2 grade equivalent scores in October (Form 3, Grade Level 8-9) and May (Form 4, Grade Level 8-9). (3) OLMAT, Advanced Level in May. Training sessions were held once each week to help teachers focus on outcomes of instruction, their measurement, and the interpretation of scores to students.

Teachers were extremely concerned and seemed quite threatened after they had responded to the Nelson-Denny and the Reading and Vocabulary of the ITBS even though their scores were known only to themselves. There was finally a confrontation and their contention seemed to be that testing was unnecessary since they were qualified and experienced professionals. Since many appar-

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ently did not understand the necessity for the testing, the facts were presented concerning the great range and low median of their scores. At that point most teachers were greatly surprised and verbalized that they understood the need for testing. Some of the lower scoring teachers did, in fact, ask the administration for help in their respective weak areas. The data presented in Table 1 indicates that at least 40 percent of teachers should have substantial training to be effective (accountable).

Table 1 gives the means and ranges of scores of the teachers on the ITBS and Nelson-Denny Reading Test, different forms of which were given in October 1970 and in May 1971. The six reading "specialists" scored at the upper part of each of the distributions. It can be seen that while some of the teachers scored at the upper limits of the tests, there were some teachers who scored at the fourth grade level on reading and on arithmetic. Even after removing the extreme scores and considering only the middle 75 percent of the scores, there were some teachers who scored only as well as an average sixth grader. It should be pointed out that the arithmetic test did not include any algebra or geometry; it was only arithmetic that would be encountered through eighth grade.

The scores on the Nelson-Denny Test are higher than on the ITBS simply because the Nelson-Denny was normed for adults whereas the ITBS was normed for children. Some of the teachers scored at the lower limit, grade seven, on the Nelson-Denny with a mean of 8.3.

It might be pointed out that all of these teachers are college graduates and had been certified by a state certification agency. However, these test scores indicate that for some of the teachers something was lacking in their training.

The number of teachers who scored below 100 derived IQ for 18-year-old norms (top-level norms for OLMAT) on the Otis Lennon Mental Ability Test is not particularly surprising. The scores as presented in Table 1 were predicted and are not considered significantly different from the general population of elementary and secondary teachers.

One can observe the number who earned chance score on each test, i.e., those who have no knowledge in the area measured as defined by each test. There was a significant number just above chance score on the various tests.

While teacher scores did not improve substantially over time, the teachers did apparently function significantly better at the end than at the beginning of the year. The procedure itself is more important that absolute scores at this time.

The procedure used here for testing teachers anonymously offers a means of supplying teachers with unlimited information about their proficiency in given areas and should be helpful to all school personnel in the improvement of instruction, especially as instruction is directly related to the teacher variable.

The results of this teacher testing indicates that at least a third and probably forty to sixty percent of teachers are deficient in most of the instructional areas for which they have responsibility. Also a significant number have less than average ability. The ability question does not seem to be as significant as competency in instructional areas. In view of the large numbers of teachers needed, one could justify many of very average ability, but incompetency in instructional areas is self-defeating.

TABLE 1

Teacher Characteristics: Grade Equivalent Scores on ITBS and Nelson-Denny and Derived IQ for Mental Ability

	N	No. Scoring Chance Level	Mean	Range	75 Percentile Range
ITBS Form 3, 8th Grade (October 1970)					
Vocabulary	27	0	10.5	6.8-12.9	8.5-12.5
Reading	27	6	8.2	3.7-12.4	6.5-10.8
Arithmetic Concepts	25	10	8.4	4.2-12.6	4.5-11.3
Arithmetic Problems	25	5	9.2	5.1-12.4	6.5-11.7
ITBS Form 4, 8th Grade (May 1971)					
Vocabulary	24	1	10.1	4.1-12.9	7.8-12.3
Reading	24	1	9.1	4.3-12.7	6.4-12.0
Arithmetic Concepts	24	8	9.2	4.2-12.1	6.0-11.9
Arithmetic Problems	24	5	9.5	4.1-12.7	6.2-12.0
Nelson-Denny Form A (October 1970)					
Vocabulary	28	5	12.4	7.7-14.0	10.4-14.0
Comprehension	28	1	10.6	7.0-13.8	7.9-13.8
Rate	28		11.3	7.0-14.0	8.4-14.0
Nelson-Denny Form B (May 1971)					
Vocabulary	23	4	12.1	7.0-14.0	9.0-14.0
Comprehension	23	4	8.3	7.0-11.0	7.0-10.3
Rate	23		12.6	7.0-14.0	10.0-14.0
OLMAT IQ Score (Advanced Level)	28	4	98	73-129	85-120